# STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Mining and Minerals Division 1220 St. Francis St. Santa Fe, New Mexico 87505 Telephone: (505) 476-3400

### **MINING INSPECTION REPORT**

from NMMA and must be permitted as an Existing Mining Operation.

MMD extends UNC's 1998 Variance through CY 2000.

UNC's Variance expired in 2000 and since, UNC has failed to permit the Anne-Lee and John Bill Sites which have been determined by MMD to qualify as existing mines under NMSA 1978, Section 69-36-3 (E).

2007 – MMD conducts a review of previously active uranium mine sites in New Mexico, including UNC's Anne-Lee and John-Bill Sites.

June 15, 2007 – MMD informs UNC that the permitting compliance issues must be finally resolved either by conducting current site inspections to determine compliance with the Act, or by MMD filing motion with the NM Mining Commission requesting dismissal of UNC's appeal for non-prosecution.

July 10, 2007 - UNC agrees to allow MMD access to the Anne-Lee and John-Bill sites for inspection.

November 15, 2007 – Site Inspections completed by MMD at the Anne-Lee and John-Bill sites. Evaluation of data is ongoing and compliance determinations are pending from MMD.

#### **INSPECTION NARRATIVE:**

The site inspections were arranged by MMD through Larry Bush of UNC. MMD personnel met Larry Bush and one other UNC field staffer in Grants, and then followed Larry to the Ambrosia Lake District. In addition to observing the current status of each of the reclaimed sites for overall integrity and erosional stability, the purpose of the site inspections was to conduct vegetation monitoring and sampling transects to observe progress and determine success of ongoing revegetation efforts carried out at each site. Initial site re-vegetation efforts have failed to meet success criteria for release under prior reclamation and results from vegetative sampling conducted by MMD during the last site inspections completed in summer of 1995 indicated that, neither the Anne Lee site, nor the John Bill site, had reached required plant density or species diversity for release from the NMMA. The surfaces of both sites were highly erodible and very dry and according to Larry, the general area had not received any significant or measurable precipitation in over two months.

The Anne-Lee Mine consists of a reclaimed, concrete-plugged and buried mine shaft feature situated within an area approximately 1/10 acre in size. While the immediate area of the reclaimed shaft was re-seeded in 1994, prior to that, the surrounding area associated with the Anne-Lee Mine was reclaimed in the early 90's as part of the UMTRCA Title 1 reclamation completed by the DOE. The feature consists of a roughly square shaped, mound-like expression, rising approximately 20' above the surrounding land surface. A sealed, underground mine vent shaft feature and a groundwater monitoring well are also present in the immediate area and GPS locations of these features were acquired. Moderately steep outslopes extend some 40' to 60' outward from a slightly depressed and undulating, but generally flat, top-surface. Only the top surface of the feature is fenced to exclude cattle from grazing in the area and to protect the revegetation and reclamation aspects of the site from erosion issues and unauthorized grazing. Cattle activity along the unfenced outslopes of the feature have impacted existing vegetation and disturbed the surface soils creating potential erosion problems although no immediate erosion issues were observed. Although Larry Bush indicated that the shaft has settled and subsided on

community.

GPS coordinates were acquired at each of the locations designating the point of beginning and ending for both transects completed on the John-Bill site. The vegetation transect surveys completed at the John-Bill site were randomly generated and established by utilizing the same sampling grid and methodologies established during previous vegetation transect surveys completed in October 1998.

Because no vegetation reference area exists for either the Anne-Lee or the John-Bill sites, by which to judge whether the sites allow for designation as a self-sustaining ecosystem pursuant to the Act, the reference standard used for comparison by MMD in this case, is the NRCS Range Site Description for this area designated by the NRCS as WP-2, Sandy. Further statistical analyses using the quantitative results obtained from each vegetation transect survey completed on both sites will be required to determine whether the average percent cover values for each site have been attained and meet re-vegetation success criteria for release from the Act.

Upon completion of the vegetation transect surveys of the John-Bill; MMD concluded the site inspection by briefly discussing with Larry, the path forward. MMD indicated that based on lack of vegetation and overall poor field conditions observed at the Anne-Lee reclamation, release based on prior reclamation for this site was unlikely and that at minimum, the site would need re-seeding. MMD indicated that because the John-Bill site exhibited more successfully established revegetation conditions, results of pending statistical analysis of the transect data would have to be completed prior to MMD's determination of compliance with the Act.

#### **ACTION ITEMS:**

Complete statistical analysis of data obtained from vegetation transect surveys.

Recommend a seed-mix suitable for UNC to utilize in future re-vegetation efforts at the Anne-Lee Site.

Determine compliance with the Act.

#### **PHOTOS:**

Photos taken during this field inspection can be found archived at the following location: L:\MARP\PriorReclamation

#### **MAINTENANCE ITEMS:**

Recommend that UNC extend fencing to include outslopes of the mound feature and exclude cattle from all reclaimed areas at the Anne-Lee Site. Fencing should be in accordance with NMDG&F Fencing Guidelines.

Recommend that UNC reseed the entire Anne-Lee reclamation area. The area should be mulched and re-seeded by hand broadcasting and raking an approved seed-mix into the surface. A recommended seed mix consisting of grasses and forbs, as well as, the suggested rates of application are specified below in lbs. pure live seed (PLS) per acre (lbs./ac.):

Blue Grama – Hatchita 1.0 Crested Wheat Grass 5.0 Western Wheat Grass 2.5

## SHEET 1 OF Z

Site Name ANN LEE / UNC	Date
Location AMBROSIA LAKE DIST.	Grid TOP SURFACE OF SEALED
Transect Description   FORT INTERVAL	SMAFT NE 7 SW TREND

Investigators SHEPHERD HOWEN LUCAS-KAMAT

			2		_
1 C (	>	2 CO	C 0	4 RT	5 B L
6	RT.	7 RT	8 L	9 RT	10 RT
11	ВT	12 B4	13 B G	14 13 A	15 13 4
16	ВЦ	17 B 4	18 13 G	19 \$ 4	20
21	34	22 R[	23 3 4	<sup>24</sup> & G	25 3 4
26	B4	27 B G	28 B G	29 L.T	30 . B 4
31	134	32	33 B 4	34 13 G	35 13 G
36	IRG	37 1. RG	38 A 5 T	39 BG	40 <b>3</b> 4
41	B4	42 13 G	43	1 R G	45
46	8 4	47 AST	48 <b>A</b> ST	49 B <b>G</b>	50 AsT

Total Rock %		
Total Bare Ground %	-	·
Total Grass %	Total Perennial % Total Annual	<u> </u>
Total Forb %		
Total Litter %	BG = BARE GRND	Co = COCHIA
	AST = ASTER	RT = RUSSIAN THISTLE
WG = WHEATGRASS	L = LITTER	
	IRH INDIAN RICE	GRASS

Site Name ANN LEE / UNC	Date_ 111507	
Location	Grid TOP SURF	NW -> SE TREND
Transect Description	·	
Investigators		
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1	2	3	4	5
L	B 4	B 4	B4	B 4
6	7	8	9	10
B G	8 G	B.G.	AsT	B.Cg
li	12	13	14	15
RT	RT	BG	RT	<b>B G</b>
16	17	18	19	20
R.T	& G	AGT	AST	L
21	22 W G	23	<sup>24</sup> L	<sup>25</sup> BG
26	27	28	29	30
	R. T	RT	战	B 4
31	32	33	34	35
RT	13 4		B G	BG
36	37	38	39	40
L	B G	13 4	B G	
13 G.	42 RT	43	44 \$ <b>4</b>	45 B <b>4</b>
46	47	48	49	50
A 5-T	A5T	A 5 T	B 4	B 4

Fotal Rock %			
Fotal Bare Ground %			
Fotal Grass %	Total Perennial %	Total Annual %	_
Total Forb %			
Total Litter %			

Site Name:

Ann Lee

Operator:

UNC

Location:

Ambrosia Lake District

Grid:

Surface of sealed shaft; inside fence

Transect Number:

Transect Description: SE corner to NW corner of fenced shaft

Interval:

1 foot interval

Date:

11/15/2007

Investigators:

Holland Shepherd, James Hollen, Susan Lucas Kamat

1 litter ✓

2 bare ground

3 bare ground√

4 bare ground~

5 bare groundv

6 bare ground~

7 bare groundv

8 bare ground-

9 aster-

10 bare ground

11 russian thistle~

12 russian thistle-

.13 bare ground

14 russian thistle-

15 bare ground~

16 russian thistle-

17 bare ground~

18 aster~

19 aster-

20 litter

21 litter

22 wheat grass/

23 litter /

24 litter√

25 bare ground✓

26 litter √

27 russian thistle-

28 russian thistle

29 bare ground

30 bare ground~

31 russian thistle~

32 bare ground

33 litter~

34 bare ground~

35 bare ground >

36 littery

37 bare ground~

38 bare ground~

39 bare ground-

40 litter ✓

41 bare ground ~

42 russian thistle \_

43 litter

44 bare ground -

45 bare ground ~

46 aster-

47 aster-

48 aster-

Plants Plants JR/ litter

49 bare ground ∨

50 bare ground

W1 = 25

13 9